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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,340	11/17/2003	Phillip M. Adams	2456.2.7.1	2404

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PATE PIERCE & BAIRD
215 SOUTH STATE STREET, SUITE 550
PARKSIDE TOWER
SALT LAKE CITY, UT 84111

EXAMINER

HASSAN, AURANGZEB

ART UNIT PAPER NUMBER

2182

DATE MAILED: 07/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/715,340

Applicant(s)

ADAMS, PHILLIP M.

Examiner

Aurangzeb Hassan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/16/04, 2/7/06
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claim 21 – 36 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 – 20 of U.S. Patent No. 6,691,181 in view of Katsman et al. (US Patent Number 6,115,416 hereinafter "Katsman"). U.S. Patent No. 6,691,181 teaches a delay which is incremented, yet fails to teach a delay which is dynamically assigned. Katsman analogously teaches a dynamic variable time delay (column 3, lines 16 – 45).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify U.S. Patent No. 6,691,181 with the teachings of Katsman. One of ordinary skill in the art would have been motivated to make such

modification in order to meet the increasing need for faster transmission of information (column 1, lines 55 – 61).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 21 – 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Katsman.

5. As per claims 21, 30, 32 and 33, Katsman teaches an apparatus, article and method for detecting time-gap defects in a computer system having devices interconnected to one another, the apparatus (figure 1) comprising: a memory device to store data structures comprising executables and operational data (memory of the processor, column 8, lines 13 – 15); a processor (element 60, figure 2) operably connected to the memory device to process the data structures; a controller to control an exchange of the data between the devices (element 20, figure 1, controls the optical and digital signal exchanged); and the memory device includes the data structures further comprise a detection module (data converter determines errors, element 22, figure 1, column 5, lines 9 – 14), executable by the processor and comprising: an

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operation module to initiate an exchange of data (in order to complete transmission of data along a transmission line 18, pulse code analyzer receives data from 10 analyzes and then initiates the corresponding exchange with 14) between at least two of the devices (elements 10 and 14, figure 1), a delay module (controller containing processor handles delay module duties, element 30, figure 1) to dynamically assign a value to a delay to be imposed on the exchange (column 7, lines 61 – 67, column 8, lines 1 – 2), and a verification module (processor is programmed to verify errors via delay based on the program stored in the memory of the processor, column 7, lines 46 – 60) to determine whether an error occurred in the exchange, and remained undetected by the controller (repetitively updates Δt_1 , column 7, lines 64 – 67, column 8, lines 1 – 4, t_1 includes errors occurred and remained undetected in the condition of being less than T_1 , column 8, lines 23 – 45).

Additionally as per claim 33 includes interposing a controlled delay in the exchange; and identifying devices incurring errors that remain undetected by the computer system (identifying error occurring in the data being transmitted between the transmitter/receivers, column 5, lines 10 – 15).

6. As per claims 22 and 34, Katsman teaches an apparatus and method wherein the detection module is programmed to receive an input (enabling signal, column 6, lines 49 – 53) for controlling the dynamic assignment of the value of the delay (enabling signal from the voltage converter 86 via DAC 80 via processor 60, controls the initiation of the variable delay lines, figure3, column 6, lines 33 – 53).

7. As per claims 23, 26 – 29, 31 and 35, Katsman teaches an apparatus, article and method wherein the detection module is programmed to iteratively ^{select}~~bracket~~ (repetitively updates Δt_1 and Δt_2 , column 7, lines 64 – 67, column 8, lines 1 – 4) a first value of the delay time, above which time gap errors occur and remain undetected by the control module (t_1 , column 8, lines 23 – 45), and a second value of the delay time, below which time gap errors do not occur and remain undetected by the control module (t_2 , column 8, lines 23 – 45).

8. As per claims 24 and 36, Katsman teaches an apparatus and method wherein the detection module is programmed to iteratively select by a marching method over a time domain, (successively increasing, Δt_1 and Δt_2 , element 210, figure 8, element 212, figure 9).

9. As per claim 25, Katsman teaches an apparatus wherein the marching method comprises selecting an initial value and an increment, and stepping across at least a portion of the time domain by adding the increment to the value to select a new value (successively increasing in increments, Δt_1 and Δt_2 , element 210, figure 8, element 212, figure 9).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent Numbers 5,870,541 and 6,502,210 express a system

on chip device in which one or more modules transferring data have a debugging functionality in the process of transferring data internally.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aurangzeb Hassan whose telephone number is (571) 272-8625. The examiner can normally be reached on Monday - Friday 9 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on (571)272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AH


KIM HUYNH
SUPERVISORY PATENT EXAMINER

6/27/04